



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/816,497	03/26/2001	Kumar Subramanian	Kum12Opt.Win	6281
7590		05/19/2004	EXAMINER	
Pennie & Edmonds LLP		HANDY, DWAYNE K		
1155 Avenue of the Americas		ART UNIT		
New York, NY 10036-2711		PAPER NUMBER		

1743

DATE MAILED: 05/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/816,497

Applicant(s)

SUBRAMANIAN ET AL.

Examiner

Dwayne K Handy

Art Unit

1743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 February 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 14-41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 16-18, 32-38 and 41 is/are allowed.
- 6) ☒ Claim(s) 14, 15, 19-23, 29-31 and 42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Drawings***

1. The drawings were received on 12/23/2003. These drawings are approved.

### ***Inventorship***

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 1743

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 14, 15, 19-23, 26 and 29-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smart et al. (5,801,057) in view of Muller et al. (5,285,131). Smart teaches a microsampling device comprised of a sample chamber with window as well as a needle element for sampling. The device is best shown in Figures 1 and 3A-3G. As shown in Figures 3A-3E chamber or well (28) is enclosed by a thin film glass layer (30) that is recessed from the outer surfaces of the top or bottom surfaces (column 5, lines 40-65). That is, it is indented from the outer surface of each side. Smart teaches a needle and bore as well as device dimensions in column 5, lines 7-15. Smart does not teach the use of a silicon nitride film. Muller et al. teach a vacuum-sealed incandescent light which includes a micromachined chamber sealed by a transparent silicon nitride film window. The window is transparent to wavelengths between 0.28 and 8  $\mu\text{m}$ . Thus the window transmits most of the radiation emitted by the filament. The window must be thick enough to undergo negligible deflection...a thickness of 2.8 – 2.5  $\mu\text{m}$  is adequate for this purpose (column 4, lines 6-14). It would have been obvious to one of ordinary skill in the art to combine the silicon nitride film of Muller with the device of Smart. The use of the transparent polymer film would allow for a lighter

Art Unit: 1743

device since one would be using polymers for glass in the viewing window. The use of the polymer film would also allow for rougher treatment of the device without having the fear of breaking the glass used for the viewing window.

6. Claims 24, 25, 39 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smart et al. (5,801,057) in view of Muller et al. (5,285,131) and further in view of Smithgall (3,597,046) Smart and Muller teach every element of claims 24, 25, 39 and 40 except for the antireflective coating. Smithgall teaches an optical system with a lens that is coated with magnesium fluoride to "eliminate reflections within the lens and specular reflections from without". It would have been obvious to one of ordinary skill in the art to add the coating of Smithgall to the window in the device of Orloff. Orloff teaches optical analysis of materials contained in a chamber covered by a window. One would add the antireflective coating to prevent reflection of the light used to analyze the materials through the window.

### ***Response to Arguments***

7. Applicant's arguments, filed 12/23/2003, with respect to the reference "Orloff et al. have been fully considered and are persuasive. The rejection of claims involving the use of this reference has been withdrawn. Applicant submitted a Declaration which established that the Orloff reference shares a common assignee with the instant application. However, upon further consideration, a new ground(s) of rejection is made in view of Smart et al. and Muller et al.

***Allowable Subject Matter***

8. Claims 16-18, 32-38 and 41 are allowed. Claims 16-18 were cited as allowable in the previous action. Claims 32-38 and 41 are allowed for the same reasons as claims 16-18.

***Conclusion***

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Art Unit: 1743

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dwayne K Handy whose telephone number is (571)-272-1259. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on (571)-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DKH  
May 17, 2004

  
Jill Warden  
Supervisory Patent Examiner  
Technology Center 1700